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Descriptions of Two New Hymenoptera from Japan - I

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Class I, HEXAPODA.

Order I, HYMENOPTERA.

DESCRIPTIONS OF NEW HYMENOPTERA FROM
JAPAN.—I.*

By WILLIAM H. ASHMEAD, M.A., D.Sc.,

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For several years past I have been classifying, arranging and determining the Japanese Hymenoptera in the National Museum, presented by several valued correspondents, among whom special mention should be made of Dr. Mitsukuri, of Tokyo, Mr. Y. Nawa, of Gifu, Dr. Matsumura, of Sapporo, and Mr. A. Koebele, now government entomologist of the Hawaiian Islands, whose contributions are of especial value and contain many new species, particularly among the parasitic families.

The new species in the superfamilies Sphecoidea, Vespoidea, Proctotrypoidea, Cynipoidea and Chalcidoidea are treated here. Those in the Ichneumonoidea and other superfamilies will be described in another paper.

Superfamily II, *SPHECOIDEA*.

Family XVI, CRABRONIDÆ.

Genus *CLYTOCHRYsus* Morawitz.*Clytochrysus dubiosus*, new species.

Female. — Length, 12 mm. Black; the mandibles, except at apex, the scape, except a line above, all tarsi, the superior edge of the pronotum, emarginate at the

* These papers contain descriptions of 115 new species from Japan, two from Formosa and one from China, one new genus and notes on five previously described species.

Hymenoptera-General-Japan

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middle, a band at the base of the second dorsal segment, an oblong, oblique spot at the sides of the third and fourth segments, and a band at the base of the fifth segment, yellow; wings hyaline, the stigma and veins yellowish.

The head and the thorax are closely, finely punctured, opaque, the metathorax almost smooth, shining, with a few coarse transverse ridges or folds at the extreme apex, and a deep central furrow; the clypeus has a median ridge, and is clothed with a dense silvery white pubescence; the third joint of the antennæ is about as long as joints 4 and 5 united; while the abdomen is smooth and shining, impunctate, the pygidium being subogival, with fine lines laterally and at apex, the disc concave.

Male. — Length, 11 mm. Agrees well with the female, except that the abdomen is somewhat slenderer, the pygidium rounded at apex, convex above, the mandibles black, bidentate, with a broad yellow stripe within, the front femora and tarsi beneath and anteriorly, the middle and hind tibiæ beneath and the basal joint of middle tarsi are yellow: hind tarsi black.

Type. — No. 7108, U. S. National Museum.
Japan (Dr. Mitsukuri).

Family XX, PHILANTHIDÆ.

Genus *CERCERIS* Latreille.

Cerceris japonica, new species.

Female. — Length, 10 mm. Black, strongly, coarsely punctate; the mandibles, the face, including clypeus, to base of antennæ, and the orbits nearly to the apex of the eyes, the scape of antennæ, except a line above, two small spots on the pronotum, the postscutellum, two oval confluent spots at base of second dorsal abdominal segment, a very large spot on each side of the third segment, and a band at the apex of the fifth segment dilated laterally, all yellow. Wings hyaline, faintly dusky at apical margins, the stigma and costal vein yellowish, the other veins fuscous. Legs mostly yellow, with all coxæ more or less, the front and middle femora *above*, the hind femora entirely, a spot on hind tibiæ within at apex and the hind tarsi, black.

Type. — No. 7109, U. S. National Museum.
Japan (Dr. Mitsukuri).

Cerceris quinquecincta, new species.

Male. — Length, 11 mm. Agrees well with *C. japonica*, except as follows; the scape and pedicel, except a stripe above, are yellow; the hind coxæ, except at base, their trochanters, basal half of their femora and base of their tibiæ are yellow; while the abdominal segments 2-6 are banded with yellow at apex, the first segment with two yellow spots.

Type. — No. 7738, U. S. National Museum.

Japan (Dr. Mitsukuri). Described from a single specimen. This species may yet prove to be the male of *C. japonica*.

Superfamily III, *VESPOIDEA*.

Family XXXII, BETHYLIDÆ.

Genus EPYRIS Westwood.

Epyris atamensis, new species.

Female. — Length, about 3 mm. Black, the head minutely closely punctate, the pronotum sparsely punctate; mandibles, palpi, the apical third of the scape, the flagellum and the legs, brownish-yellow, the femora more or less dusky, the front femora brown. Wings subfuscous, the venation pale brown.

The antennæ are somewhat stout, 13-jointed, the scape long, a little more than four times as long as thick; the first joint of the flagellum is a little longer than thick, more slender than the following joints; joints 2-10 wider than long. The mesonotum is without a trace of the parapsidal furrows, the scutellum with a transverse furrow across the base, while the metanotum has some elevated longitudinal lines. The abdomen is conically pointed, highly polished, but clothed with some sparse white hairs, the second segment being the longest, about one half longer than the third.

Type — No. 7110, U. S. National Museum.

Atami (Mr. A. Koebele). One specimen.

Genus GONIOZUS Förster.

Goniozus japonicus, new species.

Female. — Length, 2.5-3 mm. Black and shining; the head with some sparse, microscopic punctures; mandibles, palpi, antennæ, trochanters, tibiæ and tarsi, yellow or brownish-yellow, the coxæ and femora black or fuscous black. Wings hyaline, the parastigma and stigma brown, the other veins pale yellowish, the basal nervure with a branch not quite as long as its first abscissa, or the part between the branch and the median vein.

The prothorax has fine, longitudinal lineations on each side, the metathorax has the sides coriaceous, but has some elevated lines above, while the abdomen is pointed and highly polished.

Type. — No. 7111, U. S. National Museum.

Gifu (Y. Nawa).

Superfamily V, *PROCTOTRYPOIDEA*.

Family LII, PROCTOTRYPIDÆ.

Genus PROCTOTRYPES Latreille.

Proctotrypes scymni, new species.

Female. — Length, 3 mm. Polished black, the metathorax rugulose, without carinæ, the cauda not longer than the basal joint of the hind tarsi, or hardly so long; antennæ and legs brownish-yellow, the former faintly dusky toward apex; the second joint of the middle trochanters is produced at apex into a little tooth; wings clear hyaline, without a trace of internal veins, the subcostal vein, stigma and radius brown.

The antennæ are distinctly 13-jointed, filiform, the flagellar joints all cylindrical, the first the longest joint but only slightly longer than the second and slightly narrowed towards base, the second joint being fully four times as long as thick, or a little longer, the joints beyond gradually shortening to the last, the last being longer than the penultimate, or nearly as long as the first joint.

Male. — Differs from the female only in having the abdomen forked at apex, the antennæ longer, with the flagellum, except the first joint at base, wholly black or brown-black, the joints being a little longer, clothed with a fine, short pubescence.

Type. — No. 7113, U. S. National Museum.

Japan (Albert Koebele); Gifu (Y. Nawa).

The specimens from Mr. Koebele were bred from the woolly larvæ of a Coccinellid, *Scymnus dorcadomordes* Weise. Mr. Nawa has also bred it from a *Scymnus* larva.

Proctotrypes japonicus, new species.

Male. — Length 6 mm. Polished black; pedicel and the ring-joint reddish; palpi yellowish; legs black, the sutures of the trochanters, tips of femora, and the tibiæ and tarsi, flavo-testaceous; metathorax except a smooth space at base, rugulose, with a median carina which becomes obsolete on the posterior face. Wings hyaline, the stigma, costal and radial veins black or brown-black, the subcostal vein pale; the internal veins are wanting or indicated by brownish streaks. The antennæ are black, with the scape beneath and the pedicel yellowish.

Type. — No. 7114, U. S. National Museum.

Sapporo (Dr. Matsumura).

Family LIII, BELYTIDÆ.

Genus MIOTA Förster.

Miota hakonensis, new species.

Female. — Length, 3.6 mm. Polished black; first three or four joints of antennæ, the tegulæ, and the legs, except the hind coxæ, yellow or brownish-yellow, the flagellum, after the first joint, brown.

The antennæ are long, filiform, 15-jointed, the scape fully as long as the first and second joints of the flagellum united and stouter; all the joints of the flagellum are cylindrical; the first joint of the flagellum is a little longer than the second and the longest joint, being about five times as long as thick; the following joints to the last gradually become shorter and shorter, the penultimate being only a little more than twice as long as thick. The abdominal petiole is long, fully twice as long as the metathorax and delicately, longitudinally striated or aciculated, the rest of the abdomen being smooth and highly polished.

Type. — No. 7115 U. S. National Museum.

Hakone (Mr. A. Koebele).

Family LIV, DIAPRIIDÆ.

Subfamily I, SPILOMICRINÆ.

Genus SPILOMICRUS Westwood.

Spilomicrus japonicus, new species.

Male. — Length, 3.6 mm. Polished black, the prothorax at sides *below* and the lower part of the mesopleura striated, the metathorax rugulose, the abdominal petiole long, longitudinally furrowed; antennæ longer than the body, reddish-brown, pubescent, the flagellar joints all long, cylindrical, except the first joint which is hardly one fourth the length of the second; the second joint is about seven times as long as thick, with an emargination beneath at basal fourth. Wings hyaline, faintly tinted, the marginal vein and the short radius brown-black, the former being about four times as long as thick, the radius hardly half its length, with a ray or short fuscous branch from its tip, obliquely directed inwardly, nearly parallel with the basal nervure. Under a strong lens one may also detect a delicate fuscous ray from the tip of the radius, directed outwardly and forming a long, narrow marginal cell.

Type. — No. 7116, U. S. National Museum.

Sapporo (Dr. Matsumura).

Subfamily II, DIAPRIINÆ.

Genus DIAPRIA Latreille.

Diapria mitsukurii, new species.

Female. — Length, 2 mm. Polished black, impunctate, the cheeks posteriorly, the collar at the sides, the metathorax and the petiole clothed with a glittering white pubescence, denser on the cheeks and collar; head subglobose; legs, including coxæ, brownish-yellow; antennæ 12-jointed, ending in a 5-jointed club but which is not abruptly defined, the club-joints gradually enlarging from the first, which is only about twice as thick as the last funicle joint; the antennæ, except the club, are honey-yellow, the club black; the pedicel is as long as the first funicle joint but much thicker; the funicle is 5-jointed, the joints gradually decreasing in size, the last being hardly twice as long as thick at apex; the scutellum has a rather large, transverse fovea at base; the metathorax has a sharp median ridge at base which, when seen from the side, is triangular; abdomen pointed ovate, highly polished, the petiole alone sculptured or striate; the petiole is fully twice as long as thick and so densely clothed with a whitish pubescence that its sculpture is obscured.

Male. — Differs from female in having the antennæ long, 14-jointed, the flagellar joints ellipsoidal, subpetiolate, with long hairs, the second being shorter than the first, dentate beneath.

Type. — No. 7117, U. S. National Museum.

Gifu (Dr. Mitsukuri).

Family LV, CERAPHRONIDÆ.

Subfamily I, MEGASPILINÆ.

Genus **LYGOCERUS** Förster.**Lygocerus japonicus**, new species.

Female. — Length, 2 mm. Black, the head and thorax above, alutaceous, subopaque, the sides of the thorax highly polished, shining; antennæ 11-jointed black, the scape long, about half the length of the flagellum, the pedicel obconical, the first joint of the flagellum long, cylindrical, about four times as long as thick at apex, or a little longer, the second joint about half as long as the first and a little shorter than the third, joints 3-8 nearly equal in length, about twice as long as thick, the last fusiform; legs reddish-brown, the trochanters, knees, front tibiæ and tarsi, and middle tibiæ *beneath* and their tarsi, yellowish. Wings hyaline, the stigma and veins reddish-brown.

Type. — No. 7118, U. S. National Museum.

Atami. Described from two specimens labelled No. 1287, bred by Mr. A. Koebele from an Aphis, *Lachnus* sp., found on Pine.

Lygocerus koebelei, new species.

Female — Length, 1.5 mm. Very similar to *L. japonicus*, but smaller, the sutures of the trochanters, knees, front tibiæ and tarsi, and the extreme tips of middle and hind tibiæ, pale yellowish; the flagellum is very slightly thickened toward apex, the first joint not more than thrice as long as thick, a little longer than the second, the latter being a little longer than the third, while the joints beyond to the last are only about one and one half times as long as thick.

Male. — Differs from the female in having the scape of the antennæ, except the extreme apex, and the legs brownish-yellow, the flagellum being much longer, pilose, with the joints 1-4 excised at apex, appearing when viewed from side, as if dentate.

Type. — No. 7119, U. S. National Museum.

Atami. Described from 4 ♀ and 2 ♂ specimens bred by Mr. A. Koebele from an unknown Aphis.

Genus **DENDROCERUS** Ratzeburg.**Dendrocerus ratzeburgi**, new species. (Plate VII, Fig. 1.)

Male. — Length, 1.5 mm. Black; legs, except the middle femora and the hind legs, brownish-yellow, the middle femora brownish, the hind legs, except trochanters, knees and tibial spurs, which are yellowish, black. Antennæ black, with the flagellar joints 1 to 5 each with a long, filiform or thread-like pubescent branch, the first three or four being nearly twice as long as the scape; the first joint of the flagellum is only a little longer than thick, the following to the sixth increasing in length, joints 7 to last thickened, three or more times longer than thick. Wings hyaline, the stigma and veins brown.

Female. — Length, 1.8 mm. Black; legs wholly brown, except the articulations which are yellowish; antennæ as long as the body, black except the scape at the

extreme base. The scape has a little tooth at the basal third beneath, a character not found in *Lygocerus*.

Type. — No. 7120, U. S. National Museum.

Atami. Described from a ♂ and ♀ specimen bred by Mr. A. Koebele from an Aphis.

In my generic table of the *Megaspilinae* I find I have incorrectly placed this genus in the section *without* mesonotal furrows, not having seen a representative of the genus, depending entirely upon Ratzeburg's brief description and figure in placing it.

Subfamily II, CERAPHRONINÆ.

Genus APHANOGMUS Thomson.

Aphanogmus hakonensis, new species.

Female. — Length, 0.8 mm. Head and thorax black, subopaque, the mesopleura delicately longitudinally aciculate and shining; antennæ 10-jointed, light brownish, with the three last joints black, the scape towards apex and the pedicel yellow; the flagellum is gradually thickened towards apex, the joints subquadrate in outline, the last joint large, ovate; mesonotum without a median furrow. Wings hyaline, the veins brownish. Abdomen ovate, highly polished, except some longitudinal striæ at base above.

Type. — No. 7121, U. S. National Museum.

Hakone. Described from a single specimen collected by Mr. A. Koebele.

Family LVI, SCELIIONIDÆ.

Subfamily I, TELENONINÆ.

Genus TELENOMUS Haliday.

TABLE OF SPECIES.

1. Second abdominal segment about twice as wide, as long or nearly so. 2.
Second abdominal segment as long or longer than wide. 6.
2. Pedicel of antennæ not shorter than the first joint of the funicle (none known from Japan).
Pedicel of antennæ distinctly shorter than the first joint of the funicle. 3.
3. Thorax smooth or nearly, at the most with exceedingly minute, scattered punctures. 4.
Thorax distinctly punctate, sometimes rugo-punctate, or rugulose. 5.
4. Legs black or brown-black, the trochanters, tips of femora, tips of tibiæ and all tarsi yellow. (Length, 0.70 to 0.75 mm.) *T. atamiensis*.
Legs, except coxæ, yellow, the hind femora and tibiæ medially sometimes tinged with brown. (Length, 0.45 to 0.50 mm.) *T. nawai*.
5. Legs, except coxæ, and the first six joints of the antennæ brownish-yellow, the rest

of the antennæ black; flagellum short, joints 4 to 6 wider than long; head finely punctulate, the thorax rugulose. (Length, 1.3 to 1.6 mm.).....**T. mitsukurii**
 Legs, except coxæ, brownish-yellow, the antennæ, except the scape, brown-black; flagellum long, joints 4 to 6 longer than wide; head smooth, impunctate, the thorax finely punctulate, the scutellum smooth. (Length, 1.3 mm.)

T. hakonensis.

6. Thorax sparsely, microscopically punctate.

Legs and scape of antennæ yellow, the flagellum not short, brown. (Length, 1.4 to 1.5 mm.).....**T. gifuensis.**

Telenomus atamiensis, new species.

Male. — Length, 0.70–0.75 mm. Black and shining, the head smooth, impunctate, wider than the thorax, about $3\frac{1}{2}$ times as wide as thick, antero-posteriorly, the eyes light-colored, the mesonotum with a few very minute scattered punctures; flagellum dark brown, pubescent, the scape and the pedicel except at extreme apex which is yellowish, black; wings hyaline, pubescent, the veins brown, the marginal vein very short, only about one third the length of the stigmal vein which ends in a small knob; abdomen short oval, hardly longer than the thorax, depressed, smooth and shining, except the first segment which is delicately striated; legs black or brown-black, the trochanters, tips of femora, tips of tibiæ and all tarsi yellow.

Type. — No. 7122, U. S. National Museum.

Atami. Two specimens collected by Mr. A. Koebele.

Telenomus nawai, new species.

Female, male. Length, 0.45–0.50 mm. Black and shining, impunctate, the head about 3 times as wide as thick antero-posteriorly; antennæ light brown, the scape yellowish; wings hyaline, the veins pale, the marginal vein nearly punctiform, only a little longer than thick; abdomen broadly oval, not longer than the thorax, smooth and shining; legs pale yellow, the hind femora and tibiæ medially sometimes tinged with brown.

The male is easily known by the 12-jointed filiform antennæ, the flagellar joints from the third to the last are moniliform, the second being longer than thick. Some specimens measure only 0.30 mm. in length.

Type. — No. 7123, U. S. National Museum.

Gifu. Described from 18 specimens bred by Mr. Y. Nawa from the eggs of an unknown Lepidopteron.

Telenomus mitsukurii, new species.

Female. — Length, 1.3–1.6 mm. Black, the head finely punctulate, smoother and shining in front, the thorax finely rugulose, opaque, finely pubescent; legs, except coxæ, and first six joints of the antennæ brownish-yellow, the rest of the antennæ black or brown-black; abdomen broadly oval, a little shorter than the thorax, depressed, smooth and shining; wings hyaline, pubescent, the veins light brown or brownish-yellow.

Type. — No. 7124, U. S. National Museum.

Atami and Hakone. Described from 5 specimens collected by Mr. A. Koebele.

Telenomus hakonensis, new species.

Female. — Length, 1.3 mm. Black, the head smooth and shining, impunctate, the thorax finely punctulate, finely pubescent, but with the scutellum smooth and shining; legs, except coxæ, and the scape of the antennæ brownish-yellow, rest of antennæ brown-black; abdomen oval, as long as the thorax, smooth and shining; wings hyaline, pubescent, the veins yellowish.

Type. — No. 7125, U. S. National Museum,

Hakone. Described from two specimens collected by Mr. A. Koebele.

Telenomus gifuensis, new species.

Female. — Length, 1.4–1.5 mm. Black, the head on vertex and thorax above, except the scutellum, finely microscopically punctulate, the head in front and the scutellum smooth and shining; scape of antennæ and the legs, including coxæ, yellow or light brownish-yellow; abdomen polished, the petiole and the extreme base of the second segment striated; flagellum black or brown-black, the first joint the longest, three or more times longer than thick, much longer than the pedicel, the second joint shorter than the first, the third oblong, only a little longer than thick, the fourth rounded, the club 5-jointed, joints 1 to 4 a little wider than long.

Type. — No. 7126, U. S. National Museum.

Gifu. Described from many specimens mounted on card-board and labelled No. 74, received from Mr. Y. Nawa.

Genus DISSOLCUS Ashmead.**Dissolcus japonicus, new species.**

Female. — Length, 1 mm., black, the head shining with some sparse punctures, the thorax opaque, sericeous, minutely closely punctate, with two grooved furrows on the mesonotum; antennæ brown-black, the scape beneath at base and the extreme apex of the pedicel yellowish; legs black, the tibiæ brownish-yellow, the tarsi pale yellowish; wings hyaline, pubescent, the veins light brownish-yellow; abdomen broadly oval, polished, the first segment and the second basally longitudinally striated.

Type. — No. 7127, U. S. National Museum.

Hakone. Described from a single specimen taken by Mr. A. Koebele.

Dissolcus flavipes, new species.

Female. — Length, 1 mm. Black, impunctate, shining; antennæ brown-black, the tip of the pedicel and joints 3 and 4 of funicle yellow; legs wholly yellow; wings hyaline, pubescent, the veins brown, the postmarginal vein wanting, the stigmal vein short; abdomen oval smooth and shining, the first and second segment at base striate.

Type. — No. 7128, U. S. National Museum.

Hakone. Described from one female collected by Mr. A. Koebele.

Subfamily IV, SCELIONINÆ.

Genus **HADRONOTUS** Förster.**Hadronotus japonicus**, new species.

Female. — Length, 1 mm. Black, coarsely rugulose; scape and pedicel of antennæ and the legs, except the coxæ, rufu-testaceous, flagellum brown-black; abdomen oval, feebly shagreened, subopaque; wings hyaline, the veins brown, the marginal vein short only about twice as long as thick.

Type. — No. 7129, U. S. National Museum.

Japan. Described from one specimen collected by Mr. A. Koebele.

Hadronotus hakonensis, new species.

Female. — Length, 1.5 mm. Black, coarsely rugulose, the abdomen finely rugulose, the apex of the segments smooth and shining; legs, except coxæ, flavo-testaceous, the femora basally brownish; antennæ, except the club, brownish-yellow, the pedicel brownish above; wings hyaline, pubescent, the veins brown, the subcostal veins more or less pale yellowish.

Type. — No. 7305, U. S. National Museum.

Hakone. Described from a single specimen collected by Mr. A. Koebele.

Family LVII, PLATYGASTERIDÆ.

Subfamily I, INOSTEMMINÆ.

Genus **Allotropa** Förster.**Allotropa japonica**, new species.

Female. — Length, 0.8 mm. Black, the head and thorax, except the scutellum, faintly alutaceous, the scutellum polished, shining; antennæ yellowish, the scape towards apex and the club, brown or dusky, the club 4-jointed, the pedicel fully thrice as long as thick at apex, stouter than the funicle joints, the latter slender, the first joint the longest, the second and third small, short; legs yellowish, the coxæ, all femora and the hind tibiæ and tarsi brown. Wings hyaline, the submarginal vein light brown, ending in a small knob.

Male. — Length, 0.6 mm. Agrees with the female, except in its antennæ, which are 9-jointed, the flagellar joints nodose, briefly pedicellate, with long hairs.

Type. — No. 7130, U. S. National Museum.

Japan. Described from a female and male specimen, labelled No. 1266 and 1267, bred by Mr. A. Koebele from an unknown Cecidomyiid gall.

Subfamily II, PLATYGASTERINÆ.

Genus **AMBLYASPIS** Förster.**Amblyaspis japonica**, new species.

Female. — Length, 0.8 mm. Polished black; antennæ, except the club which is black, brownish-yellow, the scape yellowish beneath; legs piceous black, the

front legs, except the femora basally, the trochanters of the middle and hind legs, and the basal half of the tibiae and the tarsi, yellow. Wings clear hyaline. Abdomen polished black, except the petiole which is longitudinally striate and has a minute yellow spot at base above.

The scutellum is triangularly pointed, a little longer than wide at base, the extreme apex piceous; the pedicel is long, slender, about three times as long as thick at apex, the funicle joints 1 and 2 also slender, the second long, cylindrical, twice as long as the first, the latter being shorter than the pedicel, joints 3 and 4 small, not longer than thick, but a little thicker than the first; club abruptly defined, 4-jointed, the joints much wider than the funicle, the first three joints nearly as wide as long.

Type. — No. 7131, U. S. National Museum.

Atami. One specimen collected by Mr. A. Koebele.

Genus *SACTOGASTER* Förster.

Sactogaster hakonensis, new species.

Female. — Length, 1 mm. Black, the head and thorax feebly, microscopically shagreened, subopaque, the pleura and the abdomen polishing, shining; antennae brown-black, the scape beneath and at base flavo-testaceous; legs black, all tibiae toward base, and all tarsi, except the last joint, yellowish; mesonotum without complete parapsidal furrows, but with a trace of them posteriorly for two thirds the length of the mesonotum; scutellum produced into a thorn-like spine at apex, with some glittering white hairs on either side at apex; abdomen with a whitish pubescence at base, the tail-like projection, which is formed by segments 3 to 6 being much narrowed, is as long as the second segment, the sixth segment being about as long as segments 3 to 5 united, the fifth a little longer than the fourth, the third hardly half as long as the third.

Type. — No. 7132, U. S. National Museum.

Hakone. One specimen collected by Mr. A. Koebele.

Genus *ANOPEDIAS* Förster.

Anopedias japonicus, new species.

Female. — Length, 0.7 mm. Polished black, the flagellum testaceous, yellowish at base, the trochanters, base of all tibiae and the apex of the front tibiae honey-yellow, the tarsi, except the last joint, yellowish-white, the metapleura and the base of the abdomen clothed with a silvery-white pubescence. Wings clear hyaline, faintly pubescent. The antennae are folded and so covered with glue that they cannot be described in detail.

Type. — No. 7133, U. S. National Museum.

Hakone. One specimen collected by Mr. A. Koebele.

Genus *POLYGNOTUS* Förster.

Polygnotus gifuensis, new species.

Male. — Length 1.6 mm. Polished black, the mesonotum without parapsidal furrows; legs, except tips of front femora, front tibiae and tarsi, which are testaceous,

wholly black; antennæ, except the extreme apex of the scape and the pedicel which have a testaceous tinge, black; the flagellum is filiform, the first joint very minute, rounded, the second larger, globular, the following to the last oblong, longer than thick, about $1\frac{1}{2}$ times as long as thick, the last joint ovate.

Type. — No. 7134, U. S. National Museum.

Gifu. Described from four male specimens, labelled No. 74, received from Mr. Y. Nawa.

Superfamily VI, *CYNIPOIDEA*.

Family LVIII, *FIGITIDÆ*.

Subfamily I, *ONYCHINÆ*.

Genus *ONYCHIA* Haliday.

Onychia japonica, new species.

Female. — Length 5–5.5 mm. Black, the scutellum with a yellow spot on each side towards the base, the front tibiæ toward base and beneath, the front tarsi, joints 2–4 of middle tarsi and joints 2–4 of the hind tarsi, yellowish. The head and thorax are shagreened, opaque, and more or less transversely rugulose; ocelli yellowish, the front ocellus placed in a smooth depression, surrounded by a delicate carina; eyes brown; antennæ long, about two thirds the length of the body, black, the first joint of the flagellum the longest joint, the last joint the next longest, only a little shorter than the first but almost as long as the two preceding joints united; middle carina of the mesonotum forked at apical third, the cell thus formed finely transversely rugulose. Wings hyaline, glabrous or nearly, the veins pale yellowish, the costal and marginal cells confluent. The metathorax is rugulose and pubescent with sometimes a yellowish spot where the petiole is attached. The abdomen is polished black, ovate, shorter than the thorax, the petiole opaque, aciculated.

Male. — Agrees well with the female except that the antennæ are 14-jointed, fully as long as the body, the joints longer proportionally, cylindrical; the first flagellum joint is not longer than the second, subemarginate outwardly at basal half; the veins of the front wings are tinged with brown, while the abdomen is more obtuse at apex than in the female.

Type. — No. 3135, U. S. National Museum.

Atami, Hakone and Nikko. Described from one male and four female specimens collected by Mr. A. Koebele.

Subfamily III, *ANACHARINÆ*.

Genus *XYALASPIS* Hartig.

Xyalaspis atemiensis, new species.

Female. — Length, 2.8 mm. Black, with yellow mandibles, the antennæ and the legs, except coxæ, hind femora basally and hind tarsi, brownish-yellow, the scape towards base and the flagellum towards apex are dusky; the coxæ, hind femora

basally, tips of hind tibiae and their tarsi are fuscous or blackish. Wings hyaline, the veins yellowish. The antennae are 13-jointed, nearly as long as the body, the flagellum very slightly and gradually thickened towards apex, the last joint being nearly as long and as thick as the scape, but hardly as long as the two preceding joints united. Head smooth, polished, except a few wrinkles on the cheeks; thorax mostly smooth, but with the pronotum, the scutellum and the metathorax rather coarsely rugulose, the scutellum ending in a blunt spine. Abdomen polished black, except beneath towards base, where it is piceous or rufo-testaceous; the petiole is short and striated.

Type. — No. 7136, U. S. National Museum.

Atami. Described from two female specimens collected by Mr. A. Koebele.

Subfamily VI, XYSTINÆ.

Genus **XYSTUS** Hartig.

Xystus japonicus, new species.

Male. — Length, 1.1 mm. Wing expanse about 3.8 mm. Head yellow, the eyes black; thorax brownish-yellow, the mesonotum with a median streak and a lateral spot towards each tegula, and the disk of the scutellum dark brown; abdomen black, beneath and at apex yellowish. Wings hyaline, the venation, except the costae basally which are yellowish, light brownish. The antennae are longer than the whole insect, 14-jointed, the basal third yellow, the apical two thirds dusky or brownish, joints 2 and 3 slightly curved, about equal in length and only a little shorter than the first, a little more than four times as long as thick, the joints beyond cylindrical, very imperceptibly shortening to the last, which is only a little more than twice as long as thick.

Type. — No. 7137, U. S. National Museum.

Japan. Received from Mr. A. Koebele, labelled No. 1268 and bred from an Aphis.

Family LIX, CYNIPIDÆ.

Subfamily I, SYNERGINÆ.

Genus **SYNERGUS** Hartig.

Synergus atamiensis, new species.

Female. — Length, 3.5 mm. Black, the head and thorax coarsely rugulose, the disk of the mesonotum transversely rugulose, the mesopleuræ with longitudinal striæ, the scutellum rugulose, with a median impression at apex; abdomen, except the petiole, smooth and shining; antennae 14-jointed, entirely pale yellowish; legs, except the coxæ, base of front femora and the middle and hind femora which are black or brown-black, flavo-testaceous, the hind tibiae, except at base and apex, fuscous; wings hyaline, the veins light brown.

Type. — No. 7306. U. S. National Museum.

Atami. Described from two specimens collected by Mr. A. Koebele.

Synergus gifuensis, new species.

Female. — Length, 3 mm. Black, the head and thorax rugulose, the disk of the mesonotum with fine, transverse rugæ, the scutellum finely, closely punctate, convexly rounded, without a median impression towards apex; abdomen smooth and shining, the sheaths of the ovipositor very briefly projecting beyond its tip; antennæ and legs brownish-yellow, the pedicel basally brown, the coxæ and hind femora, except at apex, black, the hind tibiæ and the basal joint of their tarsi, light brown; wings hyaline, the veins yellowish. The antennæ are long, 14-jointed.

Type. — No. 7307, U. S. National Museum.

Gifu. Described from three specimens, labelled No. 43, received from Mr. Y. Nawa.

Synergus hakonensis, new species.

Female. — Length, 1.8 mm. Black, the head and thorax finely rugulose, with transverse rugæ on the lobes of the mesonotum, the scutellum punctate-rugose, convexly rounded, the mesopleura shining but with some longitudinal striæ; abdomen black and shining, the sheaths of the ovipositor not at all projecting; antennæ and legs, except the coxæ and femora, pale yellow, the front and middle coxæ, middle and hind femora, except at apex, brownish-piceous, the hind coxæ black; wings hyaline, the veins pale yellowish. The antennæ are 13-jointed.

Type. — No. 7307, U. S. National Museum.

Hakone. Described from a single specimen collected by Mr. A. Koebele.

Synergus japonicus, Walker.

Dr. Mitsukuri has sent eight specimens of this species taken, I believe, by Mr. Nawa, at Gifu.

Genus CEROPTRES Hartig.**Ceroptres japonicus, new species.**

Male. — Length, 2 mm. Black, shining, the head and thorax finely pubescent, the head smooth, impunctate; antennæ and legs brownish yellow, the hind coxæ black or dusty, the hind tibiæ and tarsi more or less fuscous. Wings hyaline, the veins brownish. The antennæ are 13-jointed, cylindrical, the third joint the longest, the fourth only two-thirds the length of the third, the following to the last very imperceptibly shortening, the last long, nearly as long as the third.

Type. — No. 7138, U. S. National Museum.

Gifu. Described from three male specimens, received from Mr. Y. Nawa, who bred them from a bud-like gall on oak, irregularly rounded, depressed, about 3 mm. in diameter and of a dark brownish-black color. The gall is mounted on card-board, with the wasps, and I cannot tell whether it is a bud-gall, a leaf-gall, or a twig-gall. It may be produced by one of the genuine gall-wasps described below under the genera *Neuroterus*, *Dryophanta*, or *Callirhytis*.

Subfamily II, CYNIPINÆ.

Tribe I, CYNIPINI.

Genus **NEUROTERUS** Hartig.**Neuroterus nawai**, new species.

Female. — Length, 1.9 mm. Polished black; mandibles, palpi, four or five basal joints of antennæ, and the legs pale yellowish or luteous, the apical two thirds of the antennæ brownish. Wings hyaline, the veins brown, the radius pale towards apex; the marginal cell is long, about five times as long as wide at base. The antennæ are 14-jointed, nearly as long as the body, the third joint the longest, nearly five times as long as thick, the following very slightly decreasing in length to the last, the penultimate being not more than twice as long as thick.

Male. — Length, 1.7 mm. Distinguished at once from the female by the small compressed, triangularly-shaped abdomen, which is distinctly petioled, the petiole being nearly as long as the hind coxæ, by the antennæ which are longer than the body, brown-black, except the first three joints which are yellow, the third joint being excised towards basal half, and by the color of the legs which are straw yellow, with the hind coxæ basally and the apical two thirds of the hind tibiæ dusky or brownish.

Type. — No. 7139, U. S. National Museum.

Gifu (Y. Nawa); Hakone (A. Koebele).

Neuroterus atamiensis, new species.

Female. — Length, 1.1 mm. Polished black; antennæ, except a pale annulus at base of the third joint, wholly black; legs piceous black, the sutures of the joints alone pale. Wings hyaline, the veins brownish-piceous, the marginal cell very long, more than six times longer than wide at base.

Type. — No. 7140, U. S. National Museum.

Atami. Described from a single specimen taken by Mr. A. Koebele.

Neuroterus hakonensis, new species.

Female. — Length, 1.6 mm. Black and shining, impunctate; first four or five joints of the antennæ and the legs, including coxæ, brownish-yellow, the rest of the antennæ fuscous; wings hyaline, the veins, except the basal nervure and the apex of the first abscissa of the radius which are brown, pale yellowish. The antennæ are 14-jointed, not quite as long as the body, the second and third joints (an unusual character in this genus) about equal in length and only about four times as long as thick.

Type. — No. 7309, U. S. National Museum.

Hakone. Described from four specimens collected by Mr. A. Koebele.

Genus **DRYOPHANTA** Hartig.**Dryophanta japonica**, new species

Female. — Length, 3 mm. Polished black, shining, the head on the vertex alutaceous; two basal joints of antennæ, a very narrow annulus at apex of the first

and second joints of the flagellum, the mandibles, except teeth, the extreme apex of the cheeks where the mandibles are attached, and the legs, except the coxæ, honey-yellow; the flagellum, except as already noted, is black, the first joint the longest, one third longer than the second, the following to the sixth gradually decreasing in length, joints 7 to 11, scarcely longer than thick, the twelfth or last antennal joint fusiform, longer than the penultimate; wings hyaline, very long, the veins dark brown.

Type. — No. 7141, U. S. National Museum.

Japan (exact locality not stated). Described from a single specimen collected by Mr. A. Koebele.

***Dryophanta serratæ*, new species.**

Gall. — An irregular globular gall from 8–10 mm. in diameter, covered with numerous thread-like, fibrous filaments, each filament being densely clothed with a grayish or whitish wool-like substance.

Gall-wasp. Female. — Length, 3 mm. Head and thorax shagreened, light-brown, pubescent, the head more yellowish, the mesothorax with four black glabrous lines, two on the middle lobe and one on each lateral lobe, the lobes well defined by shagreened depressions, the disks of the lobes posteriorly shining; scutellum finely shagreened with two foveæ at base; hind femora with a brownish-black stripe above, the tibiæ and tarsi dusky behind; abdomen black, shining. Wings hyaline, the nervures brown, the second cubital cell with four irregular fuscous marks, the first near the base represented by a long streak, another parallel with the first just back of it is twisted, between it and the radius is a small, almost triangular spot, while back of this is another slightly curved, longitudinal streak; there are also some faint fuscous marks in the discoidal cell.

Type. — No. 7142, U. S. National Museum.

Sapporo. Described from a single specimen mounted on cardboard with its gall, found by Dr. Matsumura on *Quercus serrata*.

***Dryophanta brunneipes*, new species.**

Female. — Length, 2 mm. Black and shining, the head on vertex and the disk of the mesonotum finely alutaceous, the scutellum rugulose; the antennæ are 14-jointed, black or brown-black, the extreme base and apex of the third joint yellowish; legs dark brown, the coxæ black, all knees, extreme tips of tibiæ, and the tarsi, except the last joint, honey-yellow; wings long, hyaline, the nervures dark brown.

Type. — No. 7310, U. S. National Museum.

Hakone. Described from two specimens collected by Mr. A. Koebele.

***Dryophanta nawai*, new species.**

Female. — Length, 2.8 mm. Black and shining, the head on vertex and the pronotum, shagreen or wrinkled, the disk of the mesonotum smooth and highly polished, the scutellum and metathorax rugulose, opaque; the 14-jointed antennæ, except toward tips and the legs, including the coxæ, are brownish-yellow or honey-yellow, the tips of the antennæ more or less dusky; wings hyaline, the veins brown.

Type. — No. 7311, U. S. National Museum.

Gifu. Described from three specimens, labelled No. 41, received from Mr. Y. Nawa.

Dryophanta hakonensis, new species.

Female. — Length, 2–2.2 mm. Black and shining, the pronotum laterally more or less shagreened, the scutellum rugulose, opaque; antennæ 14-jointed, black or brown-black, except the apex of the pedicel, and an annulus at apex of the first joint of the flagellum which are yellowish; legs honey-yellow, the front and middle coxæ basally and the hind femora tinged with brown, the hind coxæ black; wings hyaline, the veins brown.

Type. — No. 7312, U. S. National Museum.

Hakone. Described from five specimens received from Mr. A. Koebele.

Dryophanta mitsukurii, new species.

Female. — Length, 1.5–1.6 mm. Polished, shining, the head, the antennæ, except the apical 5 or 6 joints, and the legs are all brownish-yellow; the abdomen is black; while the eyes, the 5 or 6 apical joints of the antennæ, a stripe down the middle mesothoracic lobe, and the nervures of the front wings are brown.

Type. — No. 7313, U. S. National Museum.

Atami. Described from seven specimens collected by Mr. A. Koebele. The species is named in honor of Dr. Mitsukuri, of the Imperial University of Tokyo.

Genus ANDRICUS Hartig.

Andricus japonicus, new species.

Female. — Length, 5 mm. Black and shining, the head and thorax above feebly punctate, the latter above well clothed with a sericeous pubescence, the scutellum finely rugulose punctate; antennæ and legs black, the tarsi with a rufo-piceous tinge; wings hyaline, the veins brown, the basal abscissa of the radius angulated.

Type. — No. 7314, U. S. National Museum.

Hakone. Described from a single specimen received from Mr. A. Koebele.

Genus CALLIRHYTIS Förster.

Callirhytis hakonensis, new species.

Female. — Length, 4 mm. Black, finely punctate, and clothed with a sericeous whitish pubescence, the scutellum finely rugulose; antennæ brown-black; legs dark-reddish, with the hind tibiæ and a spot at base of hind coxæ fuscous; wings hyaline, the veins brown, the first abscissa of the radius acutely angulated.

Type. — No. 7315, U. S. National Museum.

Hakone. Described from a single specimen received from Mr. A. Koebele.

Callirhytis tobiro, new species.

Female. — Length, 3 mm. Head and thorax, except the occiput, the grooved lines on the thorax and the mesopleura which are black, brownish-yellow, sparsely punctate, pubescent, the scutellum rugulose; antennæ 13-jointed, brown-black, the third joint one half longer than the fourth, the others to the last gradually shortening, joints 6–12 only a little longer than thick; legs and abdomen, except a fuscous or blackish spot above at apex, reddish, the hind tibiæ subfuscous.

Type. — No. 7316, U. S. National Museum.

Hakone. Described from five specimens collected by Mr. A. Koebele.

Tribe II, RHODITINI.

Genus RHODITES Hartig.

The only species so far recorded from Japan is *R. Japonica* Walker, described in 1876.

Rhodites hakonensis, new species.

Female. — Length, 3 mm. Head and thorax, except the scutellum which is rugulose, black and shining; ocelli pale; antennæ long, filiform, dull black; legs flavo-testaceous, the two basal joints of hind tarsi fuscous; abdomen wholly red; wings hyaline, the nervures dark brown, the radial cell with a fuscous cloud at base and along the long second abscissa of the radius, also surrounding the large triangular areolet, but more faintly.

Type. — No. 714, U. S. National Museum.

Hakone. Described from a single specimen received from Mr. A. Koebele.

Superfamily VII, CHALCIDOIDEA.**Family LXI, TORYMIDÆ.****Subfamily II. TORYMINÆ.****Genus TORYMUS Dalman.****Torymus japonicus, new species.**

Male. — Length, 1.5 mm. Æneous black, with brassy tinges, smooth except a slight shagreening of the mesonotum; flagellum black, the joints being a little wider than long; legs æneous black to the base of the tibiæ, the tibiæ and the tarsi pale yellowish. Wings hyaline, the veins yellowish.

Type. — No. 7144, U. S. National Museum.

Gifu. Described from a single specimen taken by Mr. Y. Nawa, in October, and mixed with No. 73.

Torymus sapporoensis, new species.

Female. — Length, 3 mm.; ovipositor 2 mm. Metallic gold-green, the scutellum blue-green, with purplish reflections, the head below the antennæ and the abdomen

on the dorsum bluish, but bright green and cyaneous at the sides and beneath; legs, except the middle and hind coxæ, light brownish-yellow, the tarsi, except the last joint, yellowish-white, the last joint fuscous; pedicel æneous; flagellum dull, brown-black, pubescent; wings clear hyaline, the veins pale yellowish. The head and thorax are shagreened, the large hind coxæ reticulated on the basal two thirds, smooth or nearly at the apical third; the abdominal segments at the sides are delicately shagreened.

Type. — No. 7145, U. S. National Museum.

Sapporo. Described from a single female received from Dr. Matsu-mura.

Torymus gifuensis, new species.

Female. — Length, 2 mm.; ovipositor about twice the length of the abdomen. Metallic bronze-green, the axillæ, the scutellum, the metathorax, and the hind coxæ cupreous; head and thorax shagreened; abdomen smooth, æneous black, with a bluish tinge in certain lights; scape and pedicel æneous black, the flagellum dull, brown-black, pubescent; legs metallic greenish, the tibiæ and tarsi, except terminal joints, pale yellowish, the hind coxæ bright cupreous. Wings hyaline, the veins brown.

Male. — Length 1.8–2 mm. Head and thorax bright metallic-green, shagreened, the abdomen smooth, æneous-black; antennæ black, the joints of the flagellum hardly longer than wide; legs with the apices of all femora, the tibiæ and tarsi, yellow, the hind tibiæ more or less brownish from the middle to near apex; otherwise similar to female.

Type. — No. 7146, U. S. National Museum.

Gifu. Described from one male and two female specimens, labelled No. 74, received from Mr. Y. Nawa.

Subfamily III, MONODONTOMERINÆ.

Genus MONODONTOMERUS Westwood.

Monodontomerus japonicus, new species.

Female. — Length, 3 mm.; ovipositor less than half the length of the abdomen. Blue, the head and thorax, sparsely, feebly punctate, the scrobes metallic green, shining; ocelli red; scape, except at apex, reddish-brown, the pedicel æneous black, the flagellum dull black, the joints, after the first, a little wider than long; front and middle tibiæ and all tarsi, honey-yellow, the middle tibiæ more or less fuscous above, the hind tibiæ wholly fuscous or black; rest of legs blue. Wings hyaline, the veins brown-black, the stigmal vein ending in a long uncus which is obliquely directed towards the postmarginal vein and forms nearly a closed marginal cell; the stigmal vein is enclosed by a fuscous cloud. Abdomen polished, shining, with the segments 4 and beyond, clothed with a whitish pubescence.

Male. — Length, 2.2 mm. Agrees well with the female in color except that the scape is æneous above and the head on the vertex is metallic green.

Type. — No. 7147, U. S. National Museum.

Nikko. Taken by Mr. A. Koebele.

Subfamily IV, PODAGRIONINÆ.

Genus **PODAGRION** Spinola.**Podagrion quinquedentatus**, new species.

Male. — Length, 3.4 mm. Dark bluish-green, the front of the head metallic-green; scape of antennæ and legs, except the coxæ and the hind femora, which are of a dark metallic-bluish tinge, brownish-yellow, the hind tibiæ brown or dark fuscous; the swollen hind femora are armed with *five* teeth beneath; flagellum brown-black. Wings hyaline, the veins brown. Abdomen æneous black, but yellow beneath for half its length at base.

Type. — No. 7148, U. S. National Museum.

Hong-Kong, China. This species was taken by Mr. A. Koebele; it is evidently allied to *P. sinensis* Walker.

(*To be continued.*)

THE PHILANTHIDÆ OF NEW MEXICO.—I.

BY H. L. VIERECK, AND T. D. A. COCKERELL,

NEW HAVEN, CONN.

COLORADO SPRINGS, COL.

Genus **EUCERCERIS** Cresson, 1865.

TABLE OF SPECIES (alternative).

- | | |
|---|----------------------|
| 1. Legs yellow and black; base of metathorax striate..... | 2. |
| Legs red, reddish or with some yellow..... | 3. |
| 2. Mesothorax very sparsely punctured..... | striareata. |
| Metathorax quite closely punctured..... | chapmanæ. |
| 3. Head black with a yellow, rarely red, spot above or just back of each eye.... | 4. |
| Head with much red, or at least a red or brownish patch on cheeks..... | 7. |
| 4. Enclosure of metathorax punctured; scutellum entirely black..... | montana. |
| Enclosure of metathorax transversely striate; scutellum with light markings.. | 5. |
| 5. Abdomen without red..... | 6. |
| Second segment of abdomen at least red..... | tricolor. |
| 6. Scutellum and enclosure without yellow spots..... | simulatrix. |
| Scutellum and enclosure with yellow spots..... | fulvipes. |
| 7. Sides of mesothorax sparsely punctured on a shining ground..... | 8. |
| Sides of mesothorax closely punctured, the punctures more or less confluent.. | 9. |
| 8. Top of head red except between the ocelli or occiput partly black; clypeus of ♀ with a prominent projection..... | unicornis. |
| Top of the head black with red intruding laterally..... | rubripes. |
| 9. Larger; head largely, cheeks and vertex red; clypeus of ♀ with a prominent median projection..... | fulviceps. |
| Smaller..... | 10. |
| 10. Region on each side of ocelli usually black; a prominent process on each side of clypeus in ♀..... | canaliculata. |

Atami. Described from a single specimen received from Mr. A. Koebele and labelled No. 1558, evidently bred.

Family LXII, CHALCIDIDÆ.

Subfamily I, LEUCOSPIDINÆ.

Genus **LEUCOSPIS** Fabricius.

Leucospis japonica Walker.

A female and male of this species were received from Dr. Mitsukuri. The male was unknown to Walker; it differs from the female in having no yellow band at the apex of the scutellum, the two minute yellow spots on the disk of the pronotum, so conspicuous in the female are wanting, while the abdomen has two yellow bands—a band at the apex of the second and the third segments, two yellow dots on the disk of the first segment and a yellow dot at the apex of the last segment.

Type ♂ — No. 7151, U. S. National Museum.

Gifu. Described from a male, accompanied with a female, received from Dr. Mitsukuri, which I am informed by Mr. Marlatt, were taken by Mr. Y. Nawa, of Gifu.

Subfamily II, CHALCIDINÆ.

TRIBE I, CHALCIDINI.

Genus **CHALCIS** Fabricius.

The species known from Japan falling in this genus are *C. formosensis* Ashm., *C. mitsukurii* Ashm., *C. chinensis* Ashm., *C. euplææ* Westw., *C. obscura* Walk. and *C. mikado* Cam. (= *C. callipus* Kirby).

TRIBE II, SMICRINI.

Genus **EPITRANUS** Walker.

Epitranus albipennis Walker.

Hiogo.

TRIBE III, CHALCITELLINI.

Genus **ANACRYPTUS** Kirby.

To this genus belongs *Epitranus erythrogaster* Cam. described from Nagasaki.

Anacryptus japonicus, new species.

Male. — Length, 4.2 mm. Black and shining, but closely punctate, except on the mesonotum and the scutellum, where the punctures are larger and sparser; tips of

femora, the hind trochanters and hind tibiae behind reddish, the base and apex of front and middle tibiae, and all tarsi, honey-yellow; scape very long, slender, honey-yellow, the flagellum filiform, brown-black; petiole of abdomen long, longitudinally furrowed, a little longer than the hind femora, opaquely shagreened, the body of abdomen highly polished, shining, not large, subovate and compressed. Wings hyaline, almost bare, the veins brown, the stigmal vein very short, the postmarginal not developed.

Type. — No. 7155, U. S. National Museum.

Hakone. Described from one specimen collected by Mr. A. Koebele.

Anacryptus koebelei, new species.

Female. — Length, 3 mm. Black and shining, closely punctate, except on the middle mesothoracic lobe where the punctures are not so close; front and middle legs, including the coxae, honey-yellow, all tarsi pale, hind coxae black, the hind femora brown-black, the hind tibiae pale on posterior face. Wings hyaline, the veins yellowish the very small stigmal vein brownish. The abdominal petiole in this species, is shorter than the hind femora, longitudinally furrowed, while the body of the abdomen is long ovate, subcompressed, highly polished, the basal segment occupying nearly its whole surface, the following segments all very short.

Type. — No. 7161, U. S. National Museum.

Hakone. Described from one specimen collected by Mr. A. Koebele.

TRIBE IV, HALTICHELLINI.

Genus **STOMATOCERAS** Kirby.

To this genus belongs *Halticella tinctipennis* Cam. described from Nagasaki. The following species are apparently undescribed.

Stomatoceras hakonensis, new species.

Female. — Length, 6.5 mm. Wholly black, shining, punctate, clothed with a sparse glittering grayish or whitish pubescence, the scutellum with a median longitudinal furrow, the mesopleura coarsely longitudinally striated, the head deeply and broadly excavated in front, the excavation encircled by a rim or carina, the front ocellus placed within the excavation. Wings subfuscous, paler basally, the veins black. The abdomen is conic-ovate, not longer than the thorax, smooth and shining, except the sixth segment which has some distinct thimble-like punctures.

Type. — No. 7157, U. S. National Museum.

Hakone. Described from a single specimen collected by Mr. A. Koebele.

Stomatoceras clavicornis, new species.

Male. — Length, 3-3.5 mm. Black, closely punctate, clothed with a sparse, glittering white pubescence, the central longitudinal furrow on the scutellum only vaguely defined, the mesopleura punctate, not longitudinally striated; flagellum

strongly clavate, black, except basally, the scape and the two or three basal joints of the flagellum being pale or yellowish; tegulae, middle coxae, base and tips of front and middle femora, tibiae and tarsi and hind tarsi, honey-yellow or testaceous, the rest of the front and middle femora and the hind legs brownish or brown-black the hind legs darkest, sometimes black. Wings hyaline, the veins brown. The abdomen is oval, shining, the third segment, and those beyond, faintly, microscopically punctate.

Type. — No. 7158, U. S. National Museum.
Hakone (Mr. A. Koebele).

Family LXIII, EURYTOMIDÆ.

Subfamily I, AXIMINÆ.

Representatives of this group should be found in Japan.

Subfamily II, EURYTOMINÆ.

TRIBE I, ISOSOMINI.

Genus *ISOSOMA* Walker.

To this genus belongs *Eurytoma antica* Walk., described from Hiogo.

TRIBE II, EURYTOMA Illiger.

Eurytoma appendigaster Swederus.

I have received specimens of this species from Yokohama and Gifu.

Eurytoma nikkoensis, new species.

Female. — Length, 2.4 mm. Black, shallowly umbilicately punctate, the middle mesothoracic lobe anteriorly almost smooth, shining; front legs from base of femora, the middle legs from apical half of femora, and the hind knees, tips of their tibiae and the tarsi, honey-yellow; wings hyaline, the veins light brown, the marginal vein about one half longer than the stigmal vein, the postmarginal vein delicate, hardly longer than the stigmal. The head is considerably wider than the thorax; antennae, except a yellow annulus at apex of the pedicel, wholly black, the flagellar joints oblong oval, the first the longest, the others gradually shortening; abdomen ovate, pointed at apex, not longer than the thorax, smooth and shining, subcompressed, the petiole short transverse; the body of the abdomen seen from the side is only a little more than twice as long as wide. The pronotum is only a little wider than long.

Type. — No. 7159, U. S. National Museum.

Nikko. Described from a single specimen collected by Mr. A. Koebele.

Eurytoma atamiensis, new species.

Female. — Length, 1.8 mm. Black, the head and thorax umbilicately punctate; scape of antennae and the legs, except the hind coxae and the hind femora,

brownish-yellow; abdomen ovate, ending in a point, smooth and shining, seen from the side it is hardly twice as long as wide; wings hyaline, the veins light brown, the marginal vein nearly twice as long as the stigmal; flagellum brown, the joints 2 to 5, moniliform. The pronotum is twice as wide as long.

Type. — No. 7160, U. S. National Museum.

Atami. Described from seven specimens collected by Mr. A. Koebele.

Eurytoma japonica, new species.

Female. — Length, about 4 mm. Black, the head and thorax umbilicately punctate, clothed with a fine, sparse, whitish pubescence; scape of antennæ and the legs, except the coxæ, honey-yellow, the coxæ black, the incisions of the joints, apices of the tibiæ and the tarsi yellowish-white; flagellum brown-black, the joints oblong, the first about two and one half times as long as thick, the second about twice as long as thick, the following very gradually shortening; wings hyaline, the veins brownish-yellow, the marginal vein nearly twice as long as the stigmal; abdomen ovate, not ending in a projecting point at apex, smooth and shining, seen from the side, a little more than twice as long as wide, only slightly compressed. The pronotum is shorter than the mesonotum, about one and one half times as wide as long.

Type. — No. 7161, U. S. National Museum.

Sapporo. Described from a single specimen received from Dr. Matsumura.

Eurytoma binotata, new species.

Female. — Length, 1.5–2 mm. Resembles *E. atamiensis*, but the pronotum is only one and one half times as wide as long, with a small yellow spot at each anterior angle, the legs are brownish-yellow, with all coxæ and the hind femora black, while the stigmal vein is only two thirds the length of the marginal vein.

Type. — No. 7162, U. S. National Museum.

Atami. Many specimens collected by Mr. A. Koebele.

Eurytoma hakonensis, new species.

Female. — Length, 2.5 mm. Black, umbilicately punctate, but with the face, cheeks and pronotum, except medially, more or less yellow or brownish-yellow; scape of antennæ and legs yellowish, the tarsi whitish, the hind coxæ black, the hind femora brown, except at base and apex; flagellum light brownish, the joints 2–5 moniliform; wings hyaline, the veins yellowish, the marginal vein only a little longer than the stigmal; abdomen short ovate, much shorter than the thorax and only about one and one half times as long as wide. The pronotum is not quite twice as wide as long.

Type. — No. 7168, U. S. National Museum.

Hakone. Described from two specimens collected by Mr. A. Koebele.

Eurytoma mitsukurii, new species.

Female. — Length, 3 mm. Mostly brownish-yellow, the eyes, a transverse line on vertex enclosing the ocelli, the occiput, three lines on the pronotum, a spot on

each mesothoracic lobe, a central stripe on the scutellum and the apices of the dorsal abdominal segments black; wings hyaline, the veins yellowish, the marginal vein very thick, not longer than the stigmal vein. The head anteriorly is deeply excavated for the reception of the antennæ, the flagellum is filiform, joints 2-6, a little longer than thick, the first the longest joint; the pronotum is a little more than twice wider than long; while the hind tibiæ are armed behind with some stiff bristles as in the *Decatomini*.

Type. — No. 7164, U. S. National Museum.

Atami. Described from a single specimen taken by Mr. A. Koebele.

Tribe V, DECATOMINI.

Genus **DECATOMA** Spinola.

***Decatoma atamiensis*, new species.**

Female. — Length, 1.5 mm. Head, except the vertex and the occiput, the antennæ, the tegulæ, the mesopleura, and the legs, except a spot towards the apex of the hind femora and most of the hind tibiæ, yellow; the vertex, occiput, rest of the thorax, a spot on hind femora towards apex, and the hind tibiæ, except the apical fourth and a narrow annulus at base, black. Wings hyaline, the veins, except the semicircular stigma, which is brown-black, pale yellowish; there is a subfuscous fascia extending from the stigma to beyond the middle of the wing.

Type. — No. 7165, U. S. National Museum.

Atami. Described from one specimen collected by Mr. A. Koebele.

Family LXIV, PERILAMPIDÆ.

Genus **PERILAMPUS** Latrille.

***Perilampus japonicus*, new species.**

Female. — Length, 4 mm. Head, legs, except the tarsi, and the abdomen blue-black, smooth and shining; tarsi honey-yellow; thorax æneous-black, the dorsum with a greenish tinge, coarsely, closely punctate, except the lateral mesothoracic lobes which are smooth and shining, scape and pedicel æneous; flagellum brown-black, a little paler or brown at apex; wings hyaline, the veins brown.

Male. — Length, 2.5 mm. Agrees with female, except in size, and in having the head and scutellum metallic greenish, the legs æneous-black, the tarsi longer and slenderer, light brownish.

Type. — No. 7166, U. S. National Museum.

Sapporo. Described from a ♀ and ♂, labelled No. 15, received from Dr. Matsumura.

Family LXV, EUCHARIDÆ.

Genus **SCHIZASPIDIA** Westwood.

***Schizaspidia tenuicornis*, new species.**

Female. — Length 4 mm. Head and thorax metallic-green, the abdomen black, the petiole yellow at apex; mandibles, antennæ and legs, except the hind coxæ,

light brownish-yellow, the tarsi paler; wings hyaline, the marginal and short stigmal vein brown, the latter enclosed in a small, fuscous cloud. The head, except some longitudinal striæ on the face, is smooth; the antennæ are long, the joints of the flagellum being rather long and cylindrical, the first joint about six times as long as thick; the thorax is coarsely rugose, with distinct parapsidal furrows, the scutellum produced at apex and ending in two short prongs; the abdomen is longly petiolated, the petiole being longer than the hind femora, smooth and shining, brown or brown-black with its apex yellow, while the body of the abdomen is ovate, a little more than twice longer than thick.

Type. — No. 7167, U. S. National Museum.

Sapporo. Described from two specimens (one imperfect) received from Dr. Matsumura.

Family LXVI, MISCOGASTERIDÆ.

Subfamily II, TRIDYMINÆ.

Genus **TRIDYMUS** Ratzeburg.

Tridymus hakonensis, new species.

Female. — Length, 1.5 mm. Æneous-black, smooth, the head anteriorly, the middle mesothoracic lobe, and the scutellum brassy; legs æneous, the tibiæ brown, the tarsi yellowish; wings hyaline, the veins brown; abdomen conic-ovate, subcompressed, pointed at apex, the sides metallic-greenish.

Type. — No. 7180, U. S. National Museum.

Hakone. Described from two specimens collected by Mr. A. Koebele.

Subfamily III, MISCOGASTERINÆ.

Tribe I, HALTICOPTERINI.

Genus **HALTICOPTERA** Spinola.

Halticoptera laticeps, new species.

Male. — Length, 2.6 mm. Robust, blue-black, the dorsum of the thorax dull bronzed; scape of antennæ, the mandibles, except the teeth and the legs, except the coxæ, honey-yellow, the tarsi pale yellowish, the femora medially more or less brownish; wings hyaline, the veins brown, abdomen bluish. The head is very wide, fully four times as wide as thick antero-posteriorly, the space between the eyes being very wide, the ocelli pale, arranged in an obtuse triangle; flagellum brown-black, the joints, except the first and second, a little wider than long.

Type. — No. 7181, U. S. National Museum.

Hakone. Described from one specimen received from Mr. A. Koebele.

Family LXVIII, ENCYRTIDÆ.

Subfamily I, EUPELMINÆ.

Tribe I, EUPELMINI.

Genus CALOSOTER Walker.

Calosoter albitarsis, new species.

Female. — Length, 2.4 mm. Head, except the eyes, the antennæ and the thorax, except a streak at each side of the mesonotum, the scutellum, the mesopleura and the metanotum which are metallic brown-black, brownish-yellow; legs, except the tarsi and hind femora and tibiæ, brownish-yellow, the tarsi, except last joint, and the apical third of hind femora, white, rest of hind femora and the hind tibiæ, black; wings hyaline, the veins light brown, the marginal vein very long and slender; abdomen conic-ovate, longer than the thorax, compressed, pointed at apex, and with a bronzed metallic tinge.

Type. — No. 7172, U. S. National Museum.

Atami. Described from three specimens collected by Mr. A. Koebele.

Genus ANASTATUS Motschulsky.

Anastatus japonicus, new species.

Female. — Length, 2 mm. Head and thorax closely, finely punctulate, gold-green, the frontal furrow with a bluish tinge, the collar bluish or violaceous, the mesopleura posteriorly brownish; antennæ brown-black, the scape at base and beneath, the sutures of the trochanters, middle coxæ beneath, base of their tibiæ and the tibial spurs, yellow, rest of legs brown-black, the hind legs æneous-black; abdomen black, with a yellowish band at base beneath. Wings with the apical two thirds fuscous, the basal one third and a curved band across from the stigmal vein hyaline or whitish.

Male. — Length, 1.6 mm. Æneous black, the head and sides of thorax tinged with blue, the disk of the mesothorax metallic-green, the parapsidal furrows deep, distinct, the abdomen black; legs æneous-black, the front tibiæ and tarsi light brown, an annulus at base of the tibiæ and the hind tarsi, white. Wings clear hyaline, the veins brown, the stigmal vein about one third the length of the submarginal vein, the stigmal vein about one third the length of the marginal and ending in a little knob, the postmarginal fully two thirds the length of the marginal. The antennæ are black or brown-black, the flagellum long, filiform, densely pubescent, the joints nearly twice as long as thick.

Type. No. 7168, U. S. National Museum.

Atami. Described from several specimens received from Mr. A. Koebele.

Anastatus gastropachæ, new species.

Female. — Length, 1.8–2 mm. Head metallic-bronzed green, the thorax brownish-yellow, the middle mesothoracic lobe blue, the abdomen æneous black; scape of antennæ and the legs brownish-yellow, the tarsi pale, the middle tibiæ more or less

fuscous; flagellum long, subclavate, fuscous or brown-black; wings much abbreviated and narrowed, fuscous, with a transverse band at base and apical third hyaline.

Type. — No. 7169, U. S. National Museum.

Sapporo. Described from four female specimens received from Dr. Matsumura, and bred from the eggs of a Lepidopteron, *Gastropacha* sp.

Anastatus brevipennis, new species.

Female. — Length, 3 mm. Aeneous-black, the disk of the mesonotum and the abdomen with a bluish tinge, the latter with a white band at base; scape of antennæ and legs, except as noted, brownish-yellow, coxæ and femora brown, the hind tibiæ more or less fuscous; flagellum subclavate, brown-black; wings much abbreviated, narrowed, the apical two thirds fuscous, but divided by a transverse white band; the base of the wings hyaline.

Type. — No. 7170, U. S. National Museum.

Gifu. Described from two specimens received from Mr. Y. Nawa.

Anastatus albitarsis, new species.

Female. — Length, 2 mm. Metallic-greenish, the abdomen aeneous-black, with a white band at base; antennæ brown-black; legs aeneous-black, the trochanters and tibiæ brown, the tips of the tibiæ and the tarsi yellowish; wings fuscous, the tips paler, the basal fourth hyaline, the fuscous part with two white triangular spots vis-a-vis.

Type. — No. 7171, U. S. National Museum.

Hakone. Described from a single specimen collected by Mr. A. Koebele.

Genus EUPELMUS Dalman.

Eupelmus formosæ, new species.

Female. — Length, 2.8 mm. Ovipositor projecting, yellowish with the tip black. Bronzed green, the collar and the prosternum and the anterior part of the mesosternum bluish; scape of antennæ and the legs, except as noted, brownish-yellow, the tarsi paler, the hind coxæ aeneous-black, the hind femora metallic brown at basal two thirds; wings hyaline, the veins light brown, the marginal vein very long, about four times as long as the stigmal.

Type. — No. 7173, U. S. National Museum.

Formosa. Described from a single specimen collected by Mr. A. Koebele.

Subfamily II, ENCYRTINÆ.

Tribe III, MIRINI.

Genus COPIDOSOMA Ratzeburg.

Copidosoma japonicum, new species.

Male. — Length, 1 mm. Aeneous black, the mesonotum with a metallic-greenish tinge, smooth, impunctate; antennæ black, the flagellum subclavate; legs

brown, an annulus at base of front and middle tibiae and the tarsi, pale yellowish; wings hyaline, the marginal vein punctiform, brown.

Type. — No. 7174, U. S. National Museum.

Gifu. Described from eight specimens received from Mr. Y. Nawa.

Genus APHYCUS Mayr.

Aphycus albopleuralis, new species.

Female. — Length, 1.5 mm. Head, except the eyes, the antennae, except at apex, the prothorax, mesopleura and the legs waxy white, the mesonotum and the scutellum yellowish-brown; abdomen yellowish with some brownish stains on disk above; wings hyaline, the veins pale.

Type. — No. 7176, U. S. National Museum.

Gifu. Described from two specimens received from Mr. Y. Nawa.

Genus MICROTERYS Thomson.

Microterys japonicus, new species.

Female. — Length 1.2 mm. Yellowish-brown, the disk of the abdomen towards base tinged with brown; scape, pedicel and legs pale yellowish; funicle joints 1 to brown, 2 and 6 pure white, the club black or fuscous; wings hyaline with three transverse fuscous bands, the first very broad, the second narrow, the third at the apical fourth of the wing, with a small triangular hyaline spot on its outer margin near the apex of the wing.

Type. — No. 7177, U. S. National Museum.

Gifu. Described from three specimens received from Mr. Y. Nawa.

Genus SYRPHOPHAGUS Ashmead.

Syrphophagus nigrocyaneus, new species.

Female. — Length, 1.5 mm. Blue-black, the head with some sparse punctures on the vertex; antennae brown-black; legs brown-black, the knees, tips of tibiae of the front and hind legs and all tarsi pale yellowish, the middle tibiae, except a pale annulus at base, fuscous; wings hyaline, the marginal and stigmal veins brown.

Type. — No. 7778, U. S. National Museum.

Japan. Described from one specimen collected by Mr. A. Koebele, but without an exact locality label.

Genus TACHINÆPHAGUS Ashmead.

Tachinæphagus fuscipennis, new species.

Female. — Length, 1.6 mm. Dark blue, the head and thorax sparsely, microscopically punctate; antennae brown-black, the flagellum clavate, the funicle joints transverse, the club large; wings fuscous, the basal third hyaline, the subcostal vein, except at apex, yellowish, the apex of the subcostal vein, the marginal, stigmal and postmarginal veins brown; legs dark brown or fuscous, the knees, tips of tibiae and the tarsi pale yellowish or whitish.

Type. — No. 7182, U. S. National Museum.

Atami and Hakone. Many specimens collected by Mr. Albert Koebele.

Genus **CHEILONEURUS** Westwood.

Cheiloneurus japonicus, new species.

Female. — Length, 1.6 mm. Yellowish-brown, the head on the vertex and the hind margin of mesonotum (broadly) metallic-bluish, the latter clothed with a silvery white pubescence, the abdomen metallic-greenish; last six joints of antennæ dilated, black and very pubescent; front wings with the apical two thirds dark fuscous, the basal third and the hind wings hyaline; legs brownish-yellowish, the tips of the middle femora, a spot at base of their tibiæ and the hind femora and tibiæ, except a white annulus at base, fuscous.

Type. — No. 7183, U. S. National Museum.

Gifu. Described from three specimens, labelled No. 85, received from Mr. Y. Nawa.

Genus **CERAPTEROCEROIDES** Ashmead.

Cerapteroceroides, new genus.

In having the wings marked with fuscous rays this genus agrees with *Cerapterocerus* Westw. and *Habrolepis* Först., but from the former it is easily separated by the head which is not oblong but short or lenticular; while from the latter it is separated by the antennæ which are strongly compressed or dilated, ribbon-shaped.

Cerapteroceroides japonicus, new species. (Plate VII, Fig. 2).

Female. — Length, 2 mm. Æneous black, with a bluish tinge, some specimens being peacock-blue; antennæ strongly compressed, dull black, the scape brownish; wings with fuscous rays as in *Habrolepis*; legs æneous black, the tips of the tibiæ and the tarsi, pale yellowish, the front tarsi whitish.

Type. — No. 7179, U. S. National Museum.

Atami (Mr. A. Koebele) and Gifu (Mr. Y. Nawa).

Family LXIX, PTEROMALIDÆ.

Subfamily I, PTEROMALINÆ.

Tribe III, EUTELINI.

Genus **PLATYTERMA** Walker.

Platyterma atamiense, new species.

Female. — Length, 1.5 mm. Bluish-green, the head and thorax shagreened; scape, pedicel and legs, except coxæ, honey-yellow; flagellum subclavate, not long, the funicle joints 2 to 6 wider than long; abdomen æneous black, conic-ovate, pointed at apex, a little shorter than the thorax. Wings hyaline, the veins light brown, the

marginal vein not short, the stigmal vein rather long, clavate about two thirds the length of the marginal, the postmarginal vein longer than the stigmal.

Type. — No. 7184, U. S. National Museum.

Atami. Described from four specimens collected from Mr. A. Koebele.

Subfamily II, MERISINÆ.

Genus **HOMOPORUS** Thomson.

Homoporus japonicus, new species.

Female. — Length, 2.8 mm. Bluish-green, the head and thorax punctate; antennæ light brown, the scape yellowish, the funicle joints 2-6 transverse; abdomen broadly oval, depressed, æneous, rounded at apex and not longer than the thorax; legs metallic brown-black, with the tips of the femora and the tibiæ and tarsi pale yellowish. Wings hyaline, with a large fuscous cloud beneath the marginal vein, the veins brown.

Type. — No. 7185, U. S. National Museum.

Atami. One specimen received from Mr. A. Koebele.

Subfamily IV, SPHEGIGASTERINÆ.

Tribe I, ASAPHINI.

Genus **PARASAPHES** Ashmead.

Parasaphes japonicus, new species.

♀. Length, 1.8 mm. Æneous black; flagellum brown; femora, except tips and the hind tibiæ reddish-brown, the tips of the femora, the front and the middle tibiæ and all tarsi pale yellowish; abdomen clavate, the petiole $2\frac{1}{2}$ times as long as thick; wings hyaline, the veins brown, the marginal vein very long and slender, nearly as long as the submarginal, the stigmal vein very short, subpetiolate, ending in a little knob.

Type. — No. 7186, U. S. National Museum.

Atami. Described from one specimen collected by Mr. A. Koebele.

Parasaphes flavipes, new species.

♀. Length, 1.6 mm. Head and thorax metallic greenish, shagreened; abdomen polished black, the petiole about twice as long as thick; scape of antennæ and the legs, including the coxæ, pale yellowish; flagellum long, brown; wings hyaline, the veins brownish, the marginal vein hardly two thirds the length of the subcostal, thickened towards apex, the stigmal vein thickened, much longer than in the previous species, more nearly as in the genus *Asaphes* Walk.

Type. — No. 7187, U. S. National Museum.

Formosa. Several specimens, labelled 1366, bred by Mr. A. Koebele.

Tribe II, PACHYNEURINI.

Genus PACHYNEURA Walker.

Pachyneura nawai, new species.

♀. Length, 1.5-1.8 mm. Head and thorax dull bronzed green, finely sculptured; abdomen metallic black; legs, except the coxæ, testaceous, the tibiæ and tarsi pale yellowish; wings hyaline, the veins brown, the marginal vein about four times as long as thick.

Type. — No. 7168, U. S. National Museum.

Gifu (Mr. Y. Nawa); Atami (Mr. A. Koebele). Bred from an unknown Aphis.

Pachyneura mitsukurii, new species.

♀. Length, 1.4 mm. Head and thorax bluish-green, sculptured; abdomen ovate, æneous; scape of antennæ and the legs pale or yellowish-white, the flagellum brown; wings hyaline, the veins brown, the marginal vein about thrice as long as thick.

Type. — No. 7188, U. S. National Museum.

Japan. Four specimens received from Dr. Mitsukuri. The specimens are mounted on cardboard and I cannot see the color of the coxæ; they are probably metallic.

Pachyneuron gifuensis, new species.

♀. Length, 1 mm. Head and thorax æneous black; antennæ brown; coxæ black, the femora dark brown, the tips and the tibiæ and tarsi yellowish-white; wings hyaline, the veins brown, the marginal vein thrice as long as thick.

Type. — No. 7190, U. S. National Museum.

Gifu. Described from three specimens bred by Mr. Y. Nawa from an Aphis.

Tribe III, SPHEGIGASTERINI.

Genus ACROCLISIS Förster.

Acroclisis coccidivora, new species.

♀. Length, 1.4 mm. Æneous-black, the head and thorax finely sculptured; antennæ brown, the scape yellowish; legs, except coxæ, honey-yellow, the knees, tips of tibiæ and the tarsi, whitish; wings hyaline, the veins light brownish, the stigmal vein a little shorter than the marginal.

Type. — No. 7191, U. S. National Museum.

Japan (exact locality not given). Described from five specimens, labelled No. 126, bred by A. Koebele from a Coccid.

Genus TRIGONOGASTRA Ashmead.

Trigonogastrea hakonensis, new species. (Pl. VIII, Fig. 3.)

♀. Length, 1.5 mm. Head and thorax bronze green, finely sculptured; abdomen æneous petiolated, the body triangular, much as in *Perilampus*; antennæ

brown, the scape yellowish; legs, except the coxæ, honey-yellow, the knees, tibiæ towards apex, and the tarsi yellowish-white; wings hyaline, the veins light brownish, the marginal vein not short, the stigmal vein ending in a little knob, less than two thirds the length of the marginal, the postmarginal longer than the stigmal.

Type. — No. 7192, U. S. National Museum.

Hakone. One specimen received from Mr. A. Koebele.

Genus **CRYPTOPRYMNUS** Förster.

Cryptoprymnus japonicus, new species.

♀. Length, 3 mm. Head and thorax bronze green, closely punctulate; abdomen æneous black, petiolated, the petiole shagreened; antennæ brown, the scape yellowish; legs, except the coxæ and the femora, very pale yellowish, the coxæ metallic, the femora, except at apex, reddish brown; wings hyaline, the veins brownish, the stigmal vein two thirds the length of the marginal, ending in a little knob, the postmarginal almost as long as the marginal.

Type. — No. 7193, U. S. National Museum.

Japan (exact locality not given). Described from a single specimen, labelled No. 1266, received from Mr. A. Koebele, evidently bred, but the host is unknown.

Family LXX, ELASMIDÆ.

Genus **ELASMUS** Westwood.

Elasmus atamiensis, new species.

♀. Length, 2-2.1 mm. Æneous black, the pronotum bluish, the head with close thimble-like punctures, the thorax with a scaly punctuation; flagellum brown; scape of antennæ, the mandibles, a spot at extreme apex of the scutellum, and the legs, except the front coxæ basally, middle and hind coxæ and the hind femora, which are concolorous with the thorax, yellowish-white, the hairs on the hind tibiæ are arranged to form five cells or areas; wings hyaline, with a fuscous cloud across from the apex of the short stigmal vein.

Type. — No. 7195, U. S. National Museum.

Atami (Mr. A. Koebele). Many specimens.

Elasmus hakonensis, new species.

♀. Length, 1.8 mm. Greenish-blue, the head with thimble-like punctures, the thorax with a scaly punctuation; flagellum brown; scape, mandibles, spot above tegulæ, apex of scutellum, abdomen at base and beneath and a band above, and the legs except as hereafter noted, yellowish or yellowish-white, the apex of middle and hind femora broadly banded with black, the hind tibiæ with the hairs arranged on its outer face to form seven areas, the first row composed of four areas, the second of three; wings hyaline, faintly clouded across from the stigmal vein.

Type. — No. 7196, U. S. National Museum.

Hakone (Mr. A. Koebele).

Elasmus japonicus, new species.

♀. Length, 2.5 mm. Head and thorax yellowish, a spot on vertex, enclosing the ocelli, a spot on pronotum medially, a median spot on mesonotum posteriorly, a spot on the axillæ, a large spot on disk of scutellum and the metanotum black; abdomen reddish-brown, the apex and three spots on basal segment black; flagellum brown; legs yellowish-white, with a black hair-line on their superior edge, the hind tibiæ with the hairs arranged on its outer face to form at least nine areas; wings hyaline, the veins brown.

Type. — No. 7197, U. S. National Museum.

Gifu. Described from four specimens received from Mr. Y. Nawa.

Family LXXI, EULOPHIDÆ.**Subfamily I, ENTEDONINÆ.****Tribe III. ENTEDONINI.****Genus PLEUROTROPIS Förster.****Pleurotropis atamiensis, new species.**

♀. Length, 1 mm. Æneous, the head above, the disk of the metanotum, and the metapleura, with a metallic greenish-tinge, vertex punctate, the mesonotum scaly-punctate; flagellum brown, pubescent, the funicle joints moniliform; legs æneous-black, the tips of the tibiæ and the tarsi, whitish, the hind femora with a metallic bluish tinge; wings hyaline, the very long marginal vein and the very short subcostal stigmal vein light brown; abdomen conic-ovate, petiolated, with a bluish tinge, the petiole about four times as long as thick, the first segment of the abdomen occupies about half the whole surface.

Type. — No. 7198, U. S. National Museum.

Atami (Mr. A. Koebele). Two specimens.

Genus DEROSTENUS Westwood.**Derostenus bifoveolatus, new species.**

♀. Length, 1.2 mm. Metallic peacock blue on vertex of head and disk of the thorax, otherwise dark bluish, except the pronotum which is brassy; tarsi, except last joint, white; mesonotum and the scutellum delicately reticulated with delicate grooved lines, the mesonotum with two umbicate punctures posteriorly just in front of the scutellum; wings hyaline, the nervures brown, the marginal vein very long, the stigmal vein very short.

Type. — No. 7199, U. S. National Museum.

Atami (Mr. A. Koebele). One specimen.

Derostenus nawai, new species.

♂, ♀. Length, 1.3 mm. Dark blue, the disk of the thorax and the abdomen æneous, tarsi, except last joint, white; mesonotum normal, without the foveæ at base, wings hyaline, the veins brown; abdomen in female conic-ovate, as long as the

thorax, the first body segment occupying half the whole surface, in male, short-oval, not more than half the length of the thorax, the first body segment occupying two thirds the whole surface.

Type. — No. 7200, U. S. National Museum.

Gifu (Mr. Y. Nawa).

***Derostenus mitsukurii*, new species.**

♀. Length, 1-1.2 mm. Dark blue, the head above and the disk of the thorax æneous, the abdomen dark blue, the thorax above and the scutellum delicately reticulated; flagellum brown; legs, except the coxæ, pale or yellowish-white; wings hyaline, the veins light brown; abdomen oval, only about two thirds the length of the thorax, the first body segment occupying most of the surface, the following very short, retracted.

Type. — No. 7201, U. S. National Museum.

Japan (Dr. Mitsukuri). Many specimens.

Tribe IV, PEDIOBIINI.

Genus NESOMYIA Ashmead.

***Nesomyia albipes*, new species.**

♀. Length, 2 mm. Metallic blue-green, the cheeks and the clypeus brassy, the abdomen conic-ovate, æneous black, the middle lobe of the mesonotum and the scutellum scaly punctate, the parapsidal furrows indicated by depressions only; flagellum black, finely pubescent; legs, except coxæ and the last joint of the tarsi, waxy-white; wings hyaline, the disk of the front wings with a subfuscous cloud, the veins light brown, the marginal vein very long, the stigmal vein very short, ending in a little knob, the postmarginal vein long.

Type. — No. 7202, U. S. National Museum.

Atami (Mr. A. Koebele). One specimen.

***Nesomyia cinctiventris*, new species.**

♀. Length, 1.1 mm. Blue, the head behind and on the clypeus, and the tip of the abdomen æneous, the abdomen conically pointed, as long or a little longer than the head and thorax united with a transverse yellowish or whitish band just beyond the base; scape and legs waxy-white, the flagellum light brownish; wings hyaline, the veins pale.

Type. — No. 7739, U. S. National Museum.

Gifu (Mr. Y. Nawa). Two specimens.

Subfamily II, APHELININÆ.

Genus APHELINUS Dalman.

***Aphelinus japonicus*, new species.**

♀. Length, 0.6 mm. Honey-yellow, the eyes light brown, the occiput above dusky, the scutellum, post-scutellum and a spot on each side of the middle bluish-

black; antennæ, legs and abdomen beneath yellowish-white; wings hyaline, the veins pale yellowish.

Type. — No. 7203, U. S. National Museum.

Atami (Mr. A. Koebele). Two specimens.

Subfamily III, TETRASTICHINÆ.

Tribe II, TETRASTRICHINI.

Genus **TETRASTICHODES** Ashmead.

***Tetrastichodes pallidipes*, new species.**

♀. Length, 1.6 mm. Bluish-æneous, the middle mesothoracic lobe with a decided metallic greenish tinge, smooth and shining; a large rounded spot on disk of abdomen, the scape of the antennæ and the legs, pale yellowish or yellowish-white; flagellum brown; wings hyaline, iridescent, the veins pale; abdomen conic-ovate, fully as long as the head and thorax united.

♂. Length, 0.8 mm. Æneous black, the flagellum longer, light brown, clothed with some long sparse hairs, the legs waxy white.

Type. — No. 7204, U. S. National Museum.

Hakone (Mr. A. Koebele).

Genus **TETRASTICHUS** Haliday.

***Tetrastichus hakonensis*, new species.**

♀. Length, 1.5 mm. Robust, æneous black, impunctate; flagellum dark brown, the first joint about thrice as long as thick, the others gradually becoming shorter; legs black, with the trochanters at apex, apices of the femora and all tibiae and tarsi pale yellowish; wings hyaline, the veins pale.

Type. — No. 7205, U. S. National Museum.

Hakone (Mr. A. Koebele).

***Tetrastichus atamiensis*, new species.**

♀. Length, 1 mm. Black with a faint bluish tinge in certain lights; scape of antennæ and the legs, except as noted, yellowish-white, coxæ, a spot on the trochanters and the hind femora, on the basal half, black; abdomen ovate, not longer than the thorax; wings hyaline, the veins pale yellowish.

Type. — No. 7206, U. S. National Museum.

Atami (Mr. A. Koebele).

***Tetrastichus tricolor*, new species.**

♀. Length, 1.8–2 mm. Brownish-yellow, the occiput and a spot on the lateral mesothoracic lobes posteriorly black, a large spot on the middle mesothoracic lobe blue-black; abdomen except a streak along the middle of the venter, æneous black; flagellum brownish; wings hyaline, the veins pale.

Type. — No. 7207, U. S. National Museum.

Atami and Hakone (Mr. A. Koebele). Many specimens.

Subfamily IV, ELACHERTINÆ.

TRIBE I, EUPLECTRINI.

Genus EUPLECTRUS Westwood.

Euplectrus japonicus, new species.

♂. Length, 1.5 mm. Black and shining, the abdomen with a yellow spot at base above, brownish-yellow beneath; antennæ and legs pale yellowish, the front and middle coxæ yellowish-white, the hind coxæ black; wings hyaline, the veins pale.

The head is highly polished, impunctate, clothed with some sparse long hairs; the pedicel is obconical, a little longer than thick at apex; first funicle joint stouter, about $1\frac{1}{2}$ times as long as thick, the second hardly longer than thick, the third and fourth stouter, a little wider than long; club short, ovate, stouter; the mesonotum is finely rugulose but without a median carina posteriorly, the scutellum including the axillæ and the metathorax are perfectly smooth, highly polished, the latter with a sharp median carina.

Type. — No. 7208, U. S. National Museum.

Japan. Described from a single specimen, labelled No. 1303, bred by Mr. A. Koebele, from an unknown noctuid larva.

Euplectrus nigromaculatus, new species.

♀. Length, 1.6 mm. Brownish-yellow, the eyes brown, a transverse band on occiput, one on the front of the pronotum and one on the front of the mesonotum, a spot on the lateral mesothoracic lobe, the metathorax, and spots on the lateral margins of the abdomen, black; scape and legs yellowish-white; flagellum brownish; wings hyaline, the marginal and postmarginal veins brown, the submarginal and the stigmal veins yellowish.

Type. — No. 7209, U. S. National Museum.

Hakone (Mr. A. Koebele). Many specimens.

Tribe II, OPHELININI.

Genus SYMPIESOMORPHA Ashmead.

Sympiesomorpha japonica, new species. (Pl. VIII, Fig. 5.)

♀. Length, 2 mm. Brownish-yellow, the middle of the head, the prothorax above, the apex of the scutellum and the metanotum, black; eyes brown-black; abdomen æneous, beneath and sometimes the sutures above pale; scape of antennæ and the legs yellowish-white; flagellum brown; wings hyaline, the veins pale-yellowish.

Type. — No. 7220, U. S. National Museum.

Gifu (Mr. Y. Nawa). Two specimens.

Genus OPHELINOIDEUS Ashmead.

Ophelinoideus japonicus, new species. (Pl. VIII, Fig. 4.)

♀. Length, 3.5 mm. Dull bronzed green, closely punctate, the head in front with a bluish green tinge, the abdomen æneous; scape of the antennæ, tips of troch-

anters, tips of the femora and all tibiæ and tarsi except the last joint, pale yellowish; wings hyaline, the veins brown.

Type. — No. 7211, U. S. National Museum.

Hakone (Mr. A. Koebele). Three specimens.

Tribe III, ELACHERTINI.

Genus **ELACHERTUS** Spinola.

Elachertus atamiensis, new species.

♀. Length, 1.5 mm. Æneous black, smooth and shining, the middle mesothoracic lobe and the scutellum with a metallic greenish tinge, and the lateral mesothoracic lobes and the axillæ with a bluish tinge; scape of antennæ and the legs pale honey-yellow, the hind coxæ usually metallic; flagellum brown-black, the funicle joints moniliform; wings hyaline, the veins pale brownish.

Type. — No. 7212, U. S. National Museum.

Atami (Mr. A. Koebele). Three specimens.

Elachertus basilaris, new species.

♀. Length, 1.7 mm. Æneous black, impunctate, the abdomen with a yellow band at base; scape of antennæ and the legs from the tips of the femora downwards honey-yellow, the coxæ and femora æneous black; flagellum light brown, the funicle joints, except the last, longer than wide; wings hyaline, the veins brown.

Type. — No. 7213, U. S. National Museum.

Gifu (Mr. Y. Nawa).

Subfamily V, EULOPHINÆ.

Tribe I, EULOPHINI.

Genus **SYMPIESIS** Förster.

Sympiesis mikado, new species.

♀. Length, 4–5 mm. Head and thorax closely punctured, metallic green, the metanotum and the long conically-pointed abdomen, which is more than twice as long as the head and the thorax united, are bottle blue, occasionally tinged with green; scape of antennæ and the legs, except the hind coxæ, which are gold-green and sculptured, honey-yellow; wings hyaline, the veins brown.

Type. — No. 7214, U. S. National Museum.

Atami (Mr. A. Koebele). Many specimens.

Genus **EULOPHUS** Geoffroy.

Eulophus albitarsis, new species.

♀. Length, 2 mm. Æneous black, sometimes bluish-green, the mesothorax shagreened, the scutellum more delicately shagreened, the axillæ smooth, in marked contrast with the mesonotum and the scutellum; legs black, except an annulus at base of front and middle tibiæ and all tarsi which are honey yellow, the last tarsal joint fuscous; wings hyaline, the veins brown.

Type. — No. 7215, U. S. National Museum.

Atami (Mr. A. Koebele). Four specimens.

***Eulophus striatipes*, new species.**

♀. Length, 1.6 mm. Greenish-blue, the thorax shagreened; legs, except the coxæ and a stripe on femora above, pale yellowish or yellowish-white, the coxæ metallic, the femora with a delicate fuscous stripe above; wings hyaline, the veins brownish-yellow; abdomen oblong-oval, depressed, as long as the head and thorax united, the sheaths of the ovipositor slightly projecting. The antennæ are broken off and cannot be described.

Type. — No. 7216, U. S. National Museum.

Atami (Mr. A. Koebele). One specimen.

***Eulophus japonicus*, new species.**

♀. Length, 2 mm. Head and thorax closely punctured, metallic green, the abdomen long ovate, æneous black; scape of antennæ, trochanters, apices of femora, the base and apex of tibiæ and all tarsi, except the last joint, yellowish-white; flagellum brown-black; wings hyaline, the veins brown, the marginal vein a little more than twice as long as the stigmal vein.

Type. — No. 7217, U. S. National Museum.

Japan (exact locality unknown). One specimen received from Mr. A. Koebele.

Family LXXII, TRICHOGRAMMIDÆ.

Genus TRICHOGRAMMA Westwood.

***Trichogramma japonicum*, new species.**

♀. Length, 0.5–0.6 mm. Piceous black, shining; palpi white; scape of antennæ pale yellowish, the pedicel and the flagellum brownish-yellow; legs yellowish-white, immaculate; wings hyaline, with delicate hair-lines, the venation light brownish, the stigmal vein as long as the marginal, oblique, scarcely bent; abdomen sessile, ovate, not longer than the head and thorax united, flat above, convex beneath and pointed at apex, the ovipositor slightly projecting beyond the tip of the abdomen.

Type. — No. 7218, U. S. National Museum.

Gifu. Several specimens bred by Mr. Y. Nawa from unknown lepidopterous eggs; they are mounted on cardboard, together with a *Telenomus*, and labelled No. 78.

EXPLANATION OF PLATES VII AND VIII.

Fig. 1. *Dendrocercus ratzeburgi* Ashmead (Jour. N. Y. Ent. Soc., XII, 70, 1904).

Fig. 2. *Cerapteroceroideus japonicus* Ashmead.

Fig. 3. *Trigonogastra hakonensis* Ashmead.

Fig. 4. *Ophelinoides japonicus* Ashmead.

Fig. 5. *Sympiersmorphe japonica* Ashmead.

Class I, HEXAPODA.

Order II. COLEOPTERA.

A SPECIES OF THE TENEBRIONID GENUS
LATHETICUS IN THE UNITED STATES.

By F. H. CHITTENDEN, Sc.D.,

WASHINGTON, D. C.

For many years there were present in the British Museum specimens of an unidentified genus of Tenebrionidæ. The species awaited description until the year 1880, when Mr. C. O. Waterhouse ventured its characterization as *Latheticus oryzae* in Volume V of the Annals and Magazine of Natural History (fifth ser., pp. 147-148).

March 3, 1897, the late H. G. Hubbard collected in the Colorado desert, at Indio, in Riverside county, in southern California, a series of a species at once recognizable as related to *L. oryzae* both by the description and the illustration published in "Aid to the Classification of Insects" (Plate 15). A brief notice of this was given by Mr. E. A. Schwarz before the Entomological Society of Washington, May 13, 1897 (Proc. Ent. Soc. Wash., Vol. IV, p. 187). Other specimens were reared in 1902 by Messrs. H. S. Barber and E. A. Schwarz from dead mesquite branches at Hot Springs, Yavapai county, Arizona.

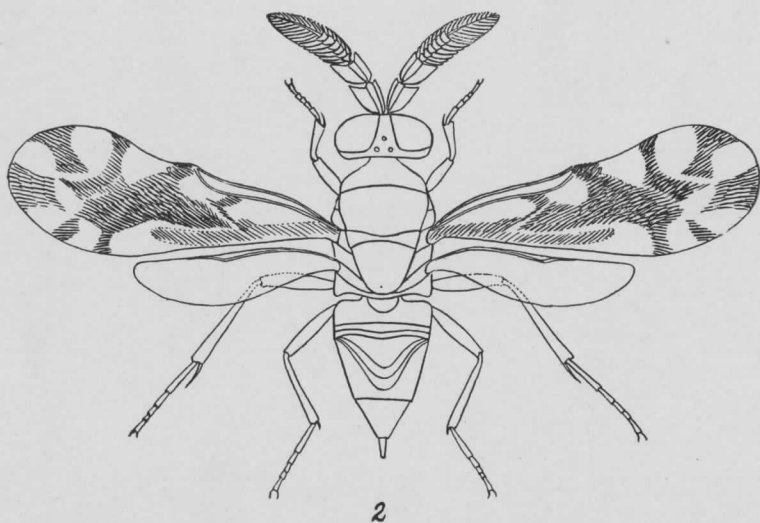
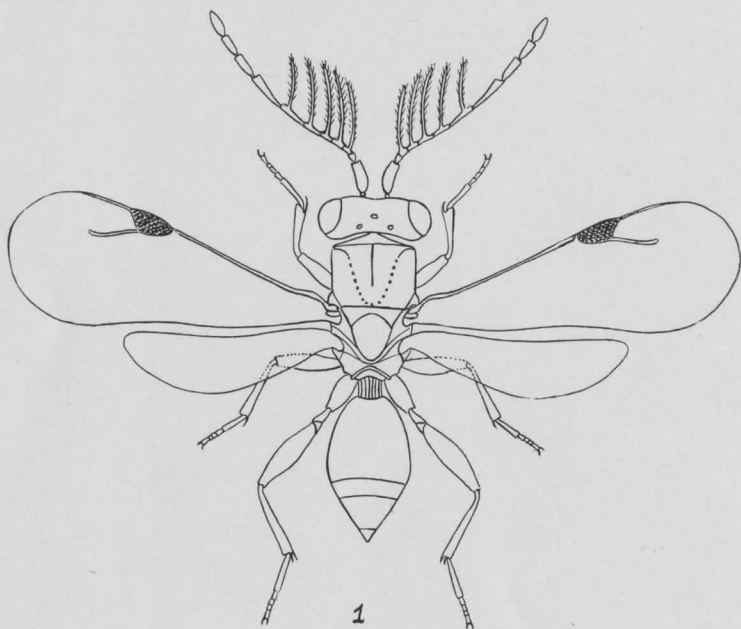
It is remarkable that an American species of this genus should exist while no other than the oriental form which has hitherto represented the genus has been discovered. It serves to accentuate the Asiatic character of the fauna of the arid region of southwestern North America.

Specimens of *L. oryzae* taken from a London granary have been kindly furnished by Mr. G. C. Champion for comparison.

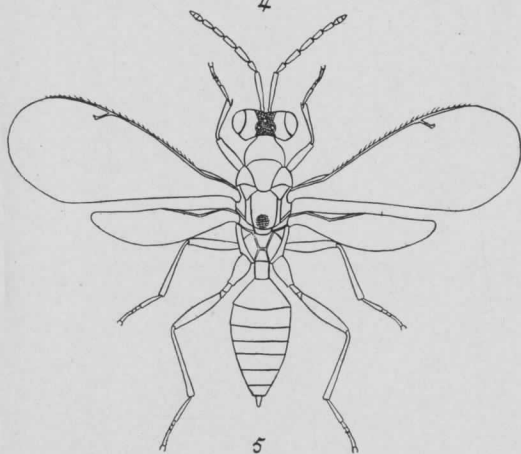
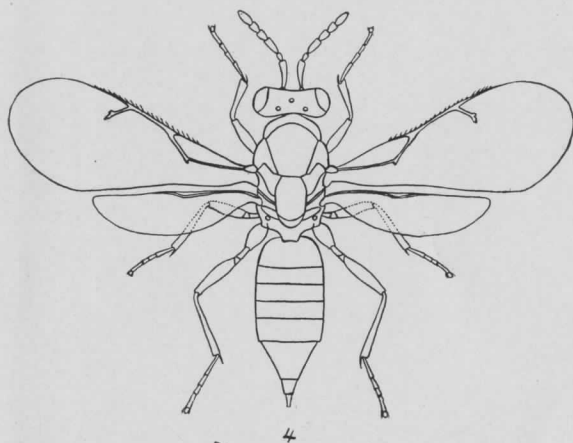
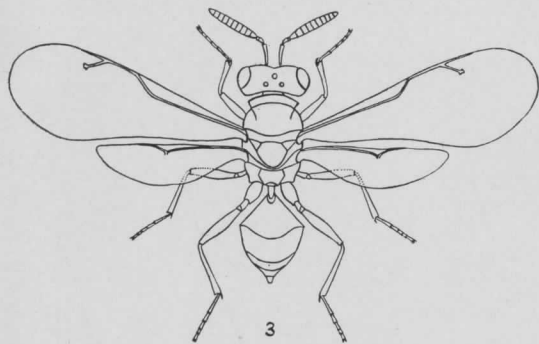
Before proceeding to its description Waterhouse's definition of the genus may be repeated as it is published where not accessible to many American collectors.

Genus **LATHETICUS** Waterhouse, 1880.

General form of *Tribolium*. Mentum transverse, the anterior angles rounded, the front margin gently emarginate in the middle, the ligula not much projecting, transverse, emarginate in the middle; the labial palpi short, the apical joint very large, one third longer than broad, subparallel (but narrowed at the base), truncate at the apex. The inner lobe of the maxillæ terminating in a very slender, acute hook,



Hymenoptera of Japan.



Hymenoptera of Japan.

